

**Amendments to the Drawings**

Figure 1 has been amended on the attached replacement sheet to include the caption, "Prior Art".

Attachment:

Figure 1 – Replacement sheet for Original Sheet 1 of 4

### **REMARKS**

This response is a full and complete response to the non-final Office Action dated December 14, 2006. In the present Office Action, claims 1-19 are pending in the application, claims 1-19 stand rejected, claims 1 and 17 stand objected, and no claims have been allowed.

By this response, claims 1, 9, 10, 12, 16 and 17 have been amended to clarify the limitations therein; claims 2, 3, 14, and 15 have been cancelled; claims 4, 7, 8, 16, and 17 have been amended to correct respective dependencies; and Figure 1 has been amended as requested. The amendments to the claims are believed to be proper and justified. No new matter has been added.

In view of both the amendments presented above and the following remarks, it is submitted that the claims pending in the application are nonobvious. It is believed that this application is in condition for allowance. By this response, reconsideration of the present application is respectfully requested in view of the foregoing amendments and the following remarks.

### ***DRAWINGS***

A replacement sheet has been attached hereto for original sheet 1 of 4 in the drawings. On that replacement sheet, Figure 1 has been amended to include the caption, "Prior Art". The filing of this replacement sheet is believed to obviate the ground of objection. As such, withdrawal of the objection is respectfully requested.

Although the drawings, as originally filed, have been considered informal, it is understood that formal drawings are not required to be filed at this time. Filing of formal drawings will be deferred without prejudice until later in this prosecution of this application.

### ***CLAIM OBJECTIONS***

Claims 1 and 17 have been objected to. These claims have been amended in the manner suggested by the Examiner in the present Office Action. These amendments are believed to obviate the grounds of objection. As a result, withdrawal of the objections is respectfully requested.

**CITED ART**

Faulkner et al., "*Adaptive linearization Using Predistortion-Experimental Results*" ("Faulkner"), Cox, "*Linear Amplification with Nonlinear Components*" ("Cox"), U.S. Patent 5,990,738 to Wright et al. ("Wright"), and U.S. Patent 6,737,914 A1, to Gu ("Gu"), are all cited and applied in the present Office Action.

**CLAIM REJECTIONS UNDER 35 USC § 102****CLAIMS 1, 5, 9-11, AND 19**

Claims 1, 5, 9-11, and 19 stand rejected under 35 USC 102(b) as being anticipated by Faulkner. Claim 1 has been amended. Claims 5, 9-11, and 19 depend directly or indirectly from claim 1. In light of this amendment, the rejection of these claims is respectfully traversed.

For a rejection under 35 U.S.C. 102 to be proper, the cited art must show each and every element as set forth in a claim. (See, MPEP § 2131.01.) However, the cited art does not describe each and every element. Particularly, Faulkner does not teach, show, or suggest a system comprising, in part, a signal processing subsystem comprising, in part:

*at least two signal component processor blocks, each of said at least two signal component processor blocks including an amplifier, each signal processor block adapted to receive an output from said signal decomposer and each signal processor block adapted to separately process said output received from said signal decomposer;...*

as defined in amended claim 1. Faulkner is silent about the characteristics of any signal appearing at the output of the CRISIS block or at the output of the D/A block in his Figure 2 and in the related description. Moreover, Faulkner provides no amplification of component signals in the system depicted in his Figure 2.

Since Faulkner does not describe each and every element of claim 1, it is believed that Faulkner does not anticipate claim 1. Since claims 5, 9-11, and 19 depend directly or indirectly from claim 1 and include all the limitations thereof, it is believed that Faulkner does not anticipate claims 5, 9, 11, and 19. Therefore it is submitted that claims 1, 5, 9,

11, and 19 are allowable under 35 U.S.C. 102 and 103. Accordingly, it is respectfully requested that the rejection of these claims be withdrawn.

#### **CLAIMS 12, 13, AND 17**

Claims 12, 13 and 17 stand rejected under 35 USC 102(b) as being anticipated by Faulkner. Claim 12 has been amended. Claims 13 and 17 depend directly from claim 12. In light of the amendment above, this rejection is respectfully traversed.

Faulkner does not teach, show, or suggest a method comprising, in part:

*decomposing said predistorted signal into at least two component signals; each of the at least two component signals exhibiting a phase and a magnitude, the magnitude of at least two of the at least two component signals being substantially equal;*

*separately processing each of said at least two component signals, wherein said processing further includes amplifying each of said at least two component signals;*

as defined in amended claim 12. Faulkner is silent about the characteristics of any signal appearing at the output of the CRISIS block or at the output of the D/A block in his Figure 2 and in the related description. Moreover, Faulkner provides no amplification of component signals in the system depicted in his Figure 2.

Since Faulkner does not describe each and every element of claim 12, it is believed that Faulkner does not anticipate claim 12. Since claims 13 and 17 depend directly or indirectly from claim 12 and include all the limitations thereof, it is believed that Faulkner does not anticipate claims 13 and 17. Therefore it is submitted that claims 12, 13, and 17 are allowable under 35 U.S.C. 102 and 103. Accordingly, it is respectfully requested that the rejection of these claims be withdrawn.

#### **CLAIMS REJECTIONS UNDER 35 USC § 103**

##### **CLAIM 4**

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner, and further in view of Cox. Claim 4 depends directly from claim 1. This rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references when combined must teach or suggest all the claim limitations. (See, MPEP § 2142.). Motivations to combine or modify references must come from the references themselves or be within the body of knowledge in the art. (See, MPEP § 2143.01.)

While the Examiner has stated that Faulkner does not teach a non-linear amplifier, it should be noted that the amplifier in his Figure 2 bears the reference NLPA, which is defined on page 323, left column, 2<sup>nd</sup> paragraph as a non-linear power amplifier. Thus there appears to be no need or motivation to combine Cox with Faulkner, since Faulkner already admits to using a non-linear power amplifier in his structure. But, that having been said, the combination still fails to teach, show, or suggest the system in independent claim 1 or dependent claim 4 for all the reasons set forth above and with respect to claim 1. Therefore, it is submitted that claim 4 is allowable under 35 U.S.C. §103. It is respectfully requested that the rejection of claim 4 be withdrawn.

#### **CLAIM 6**

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner, and further in view of Wright. Claim 6 depends directly from claim 1. This rejection is respectfully traversed.

Wright has apparently been added to Faulkner because it has been stated in the Office Action that Faulkner lacks any teaching that some of the distortion being compensated is due to the combiner. But Wright appears to compensate for imbalances in the signals on the separate paths; Wright does not compensate for any distortion due to the combiner. Moreover, Wright fails to cure the deficiencies of Faulkner already presented above with respect to independent claim 1.

The combination of Faulkner and Wright fails to teach, show, or suggest the system in independent claim 1 or dependent claim 6 for all the reasons set forth above

and with respect to claim 1. Therefore, it is submitted that claim 6 is allowable under 35 U.S.C. §103. It is respectfully requested that the rejection of claim 6 be withdrawn.

#### *CLAIMS 7 AND 8*

Claims 7 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner, and further in view of Applicant's Admitted Prior Art. Claims 7 and 8 depend directly from claim 1. This rejection is respectfully traversed.

The admitted prior art is said to deal with a switch mode amplifier structure and low impedance amplifiers. This art has apparently been added to Faulkner because it has been stated in the Office Action that Faulkner lacks any teaching that the amplifier is a switch mode amplifier or a low impedance amplifier. But, the admitted art fails to cure the deficiencies of Faulkner already presented above with respect to independent claim 1.

The combination of Faulkner and the admitted art fails to teach, show, or suggest the system in independent claim 1 or dependent claims 7 and 8 for all the reasons set forth above and with respect to claim 1. Therefore, it is submitted that claim 7 and 8 are allowable under 35 U.S.C. §103. It is respectfully requested that the rejection of claim 6 be withdrawn.

#### *CLAIM 16*

Claim 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Faulkner, and further in view of Gu. Claim 16 depends directly from amended claim 12. This rejection is respectfully traversed.

Gu has apparently been added to Faulkner because it has been stated in the Office Action that Faulkner lacks any teaching about phase modulating at least one of the at least two component signals. But Gu fails to cure the deficiencies of Faulkner already presented above with respect to independent method claim 12.

The combination of Faulkner and Gu fails to teach, show, or suggest the system in independent claim 12 or dependent claim 16 for all the reasons set forth above and with respect to claim 12. Therefore, it is submitted that claim 16 is allowable under 35 U.S.C. §103. It is respectfully requested that the rejection of claim 16 be withdrawn.

**CONCLUSION**

In view of the foregoing, it is respectfully submitted that all the claims pending in this patent application are in condition for allowance. Reconsideration and allowance of all the claims are respectfully solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Gregory C. Ranieri, Esq. at (503) 439-6500 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

In the event there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account number 50-3703.

Respectfully submitted,

Dated: February 14, 2007

/Gregory C. Ranieri, Reg. No. 29,695/  
Gregory C. Ranieri, Attorney of Record  
Registration No. 29,695

BERKELEY LAW & TECHNOLOGY GROUP, LLP  
1700 NW 167<sup>th</sup> Place, Suite 240  
Beaverton, OR 97006  
Phone: 503.439.6500  
Customer Number: 43831